

METHOD AND DEVICE FOR ATTENUATING THE MOTION OF HYDRAULIC
CYLINDERS OF MOBILE WORK MACHINERY

ABSTRACT

The present invention relates to a method for attenuating the motion of hydraulic cylinders of mobile work machinery, in particular of hydraulic excavators, in which prior to the hydraulic cylinder reaching one of the limits of travel, its motion speed is reduced, and the hydraulic cylinder is moved to the respective limit of travel at reduced speed; wherein for the purpose of reducing the speed, the inflow to, and/or the outflow from, the hydraulic cylinder are/is throttled by means of a flow control device. According to the invention, the method is characterised in that prior to the respective limit of travel being reached, the motion speed of the hydraulic cylinder is registered, and the point in time when throttling commences is changed depending on the registered motion speed. Furthermore, the present invention relates to a device for attenuating the motion of hydraulic cylinders of mobile work machinery, in particular of hydraulic excavators, comprising a position registering device for registering a preliminary limit position of the hydraulic cylinder, a control device for throttling the inflow and/or outflow of the hydraulic cylinder, and a control device for controlling the flow control device when the preliminary limit position is reached. According to the invention, the device is characterised in that it comprises a speed registering device for registering the motion speed of the hydraulic cylinder when the preliminary limit position is reached, and in that the control device comprises a delay device for delaying driving the flow control device, depending on the recorded motion speed.